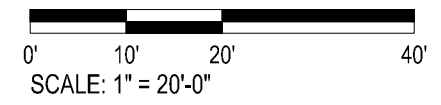


- ### KEYNOTES
- 1 LOADING ENTRANCE, SEE SITE PLAN
  - 2 TREE BOX WITH EXISTING TREE, TREE FENCE ON 3 SIDES
  - 3 TREE BOX WITH NEW TREE, TREE FENCE ON 3 SIDES
  - 4 BIORETENTION PLANTING AREA, TREE FENCE ON 4 SIDES
  - 5 3' X 3' DDOT SCORED CONCRETE
  - 6 STAIR TO 2-LEVEL INDIVIDUAL UNIT ENTRANCES
  - 7 EXISTING DDOT COBRAHEAD STREETLIGHT
  - 8 ON-SITE BIORETENTION AREA, PLANTED WITH NATIVE TALL GROUNDCOVER / LOW SHRUBS AND SMALL TREES
  - 9 5TH FLOOR EXTENSIVE GREEN ROOF (4"-8" DEPTH)
  - 10 UPPER ROOF EXTENSIVE GREEN ROOF (4"-8" DEPTH)
  - 11 AREAWAY BELOW, SEE ARCH. PLANS
  - 12 ADA RAMP TO BUILDING ENTRANCE
  - 13 STAIR TO BUILDING ENTRANCE
  - 14 GARAGE ENTRANCES ALONG ALLEY
  - 15 LANDSCAPE AREA, PLANTED WITH NATIVE TALL GROUNDCOVER / LOW SHRUBS

NOTE: FINAL STREETSCAPE MATERIALS TO BE COORDINATED WITH MINNESOTA AVE - BENNING ROAD GREAT STREETS LOCAL PLAN, AS REQUIRED

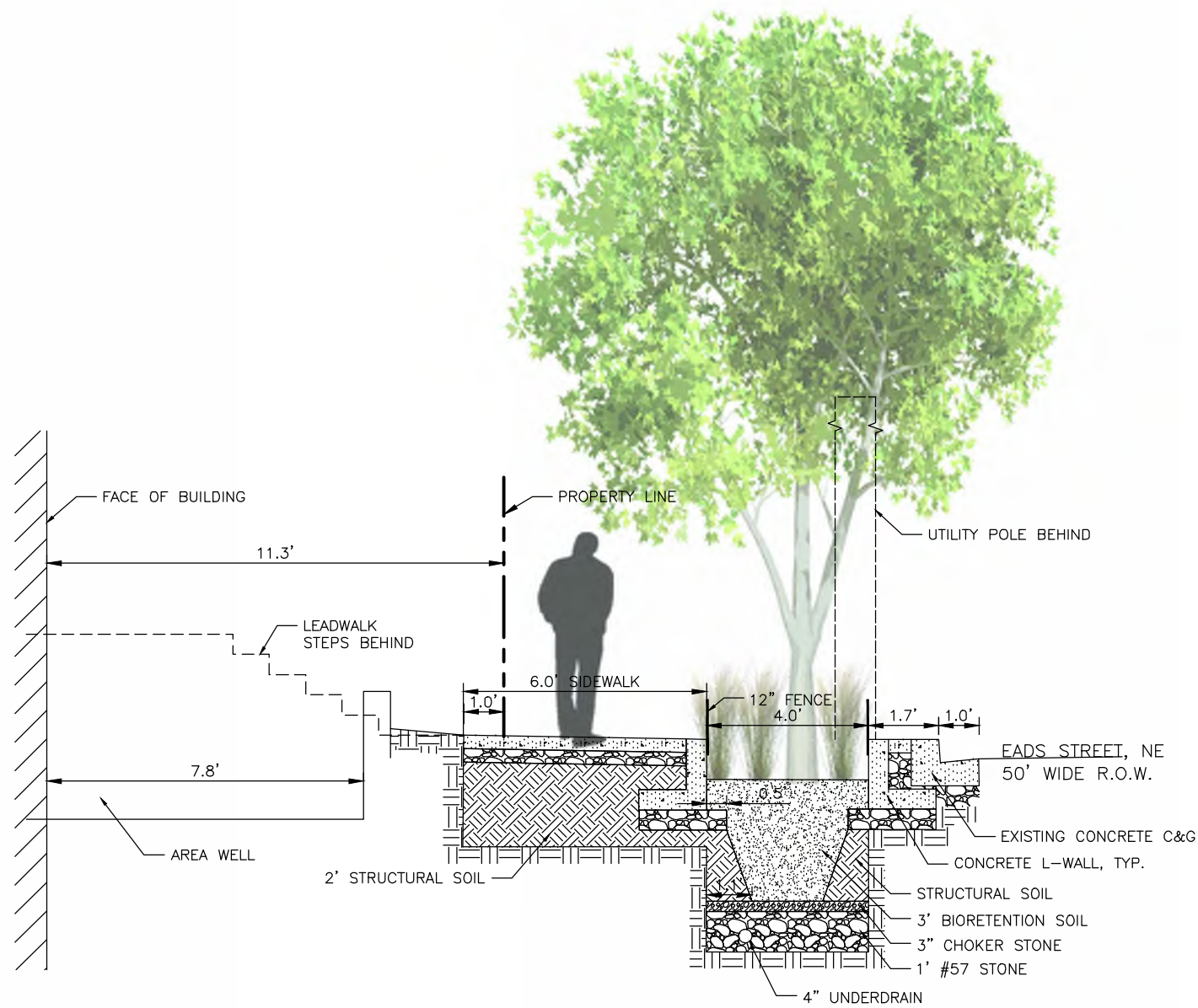


## EADS STREET APARTMENTS

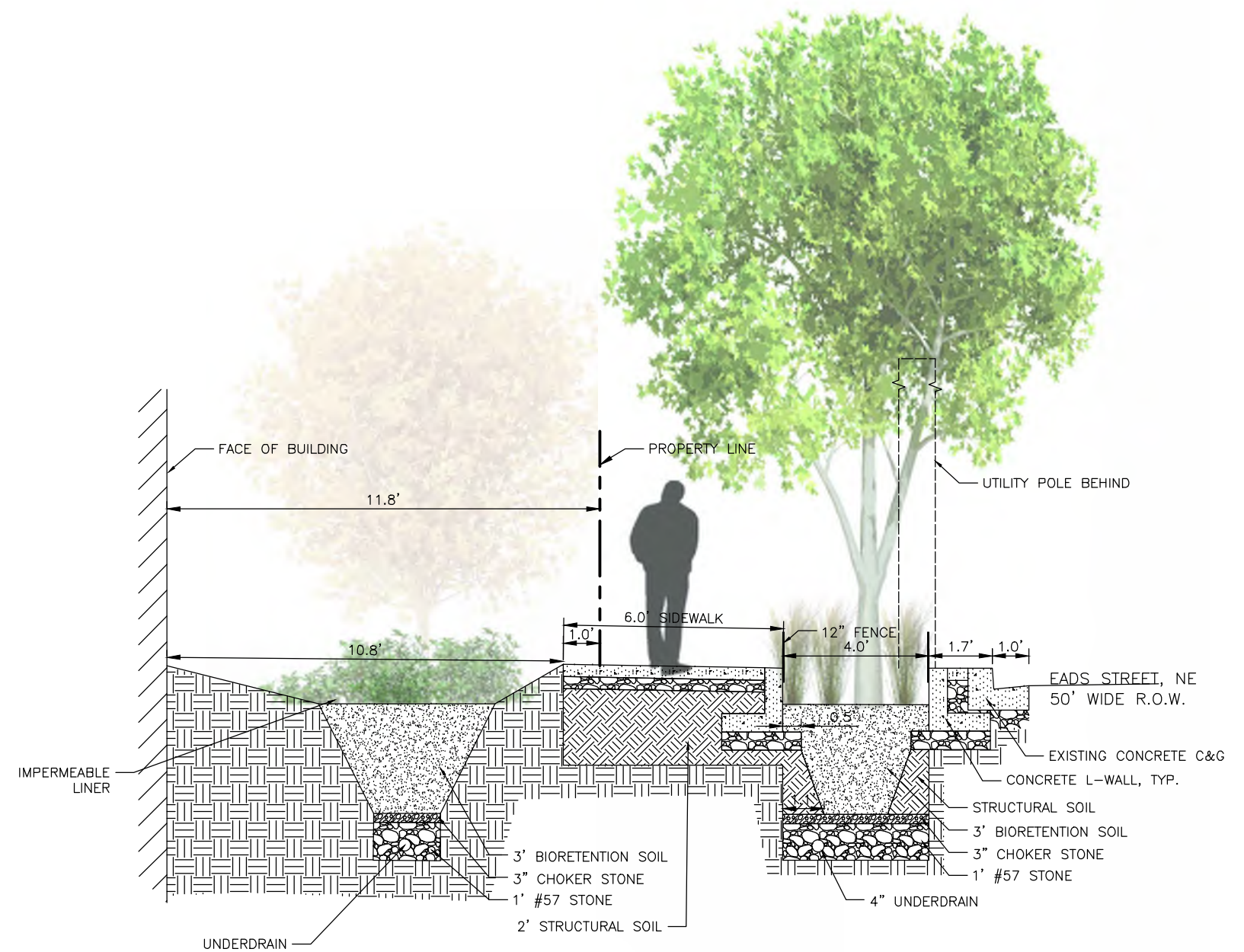
Landscape Plan

LA-1.1

ZONING COMMISSION  
 District of Columbia  
 CASE NO. 16-20  
 EXHIBIT NO. 23A2



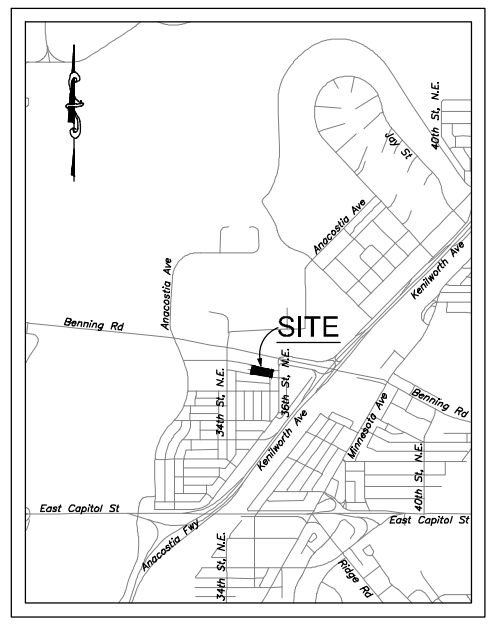
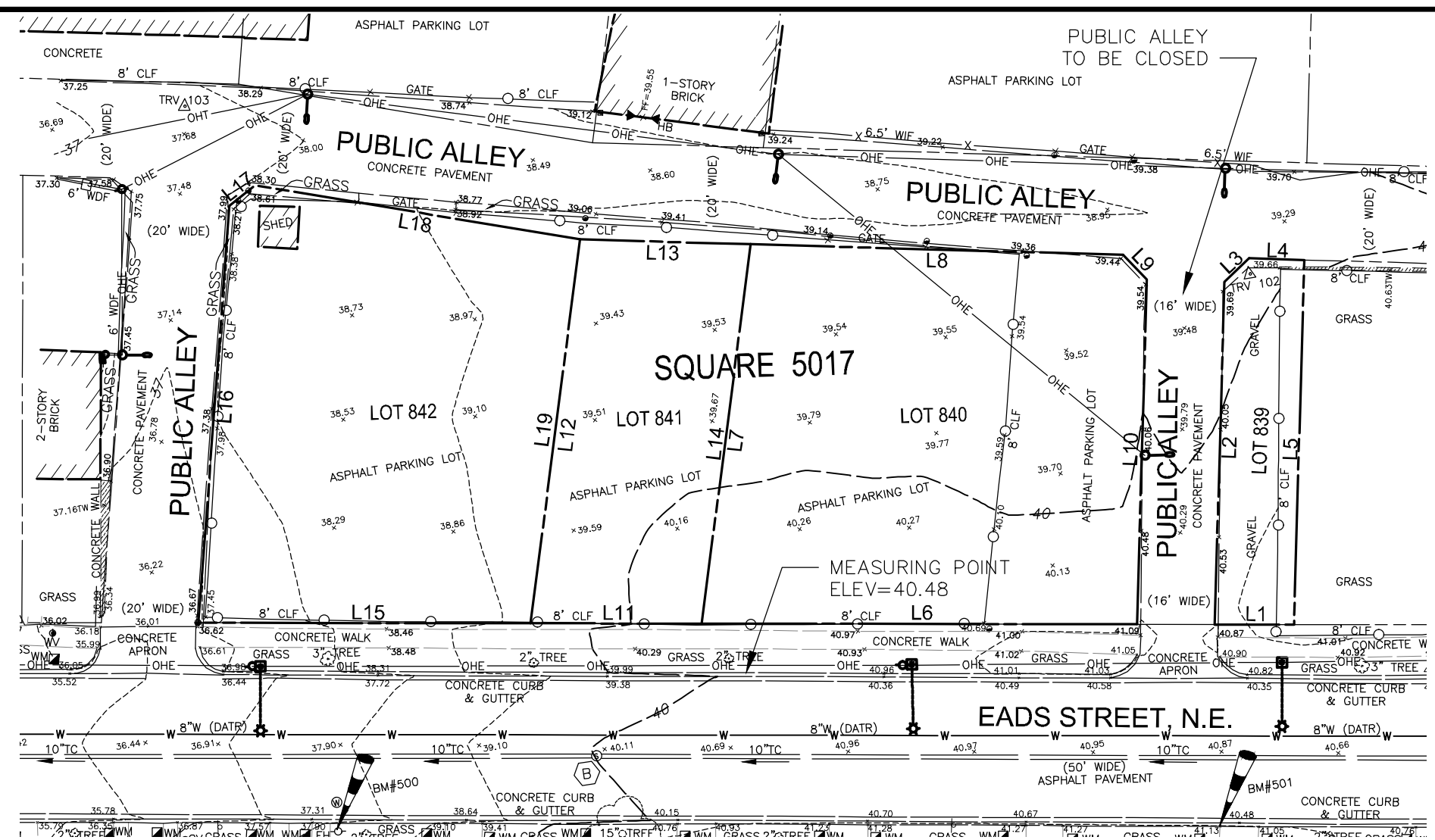
LANDSCAPE SECTION A-A'  
SCALE: 1"=4'



LANDSCAPE SECTION B-B'  
SCALE: 1"=4'

Green Area Ratio Scoresheet						
Address: 3450 Eads Street NE		Square	Lot	Zone District		
		5017	839	MU-7		
DRAFT SCORESHEET						
Lot area (sf)		Multiplier	GAR score			
17,863			0.304			
Landscape Elements						
A	Landscaped areas (select one of the following for each area)	Square Feet	Factor	Total		
1	Landscaped areas with a soil depth < 24"	square feet 0	0.3	-		
2	Landscaped areas with a soil depth ≥ 24"	square feet 0	0.6	-		
3	Bioretention facilities	square feet 487	0.4	194.8		
B	Plantings (credit for plants in landscaped areas from Section A)	Square Feet	Factor	Total		
1	Groundcovers, or other plants < 2' height	square feet 0	0.2	-		
2	Plants ≥ 2' height at maturity - calculated at 9-sf per plant	Adjusted # of plants 0	0.3	-		
	square feet					
	0	Coverage for Shrubs, Perennials, and Grasses ≥ 2' height				
	0	# of plants				
3	Trees with < 400 cubic feet of soil or below minimum planting size - calculated at 50 sq ft per tree	# of trees 3	0.5	75.0		
4	New trees with 40-foot or greater canopy spread - calculated at 250 sq ft per tree	# of trees 0	0.6	-		
5	Preservation of existing tree 6" to 12" DBH - calculated at 250 sq ft per tree	# of trees 0	0.7	-		
6	Preservation of existing tree 12" to 18" DBH - calculated at 600 sq ft per tree	# of trees 0	0.7	-		
7	Preservation of existing trees 18" to 24" DBH - calculated at 1300 sq ft per tree	# of trees 0	0.7	-		
8	Preservation of existing trees 24" DBH or greater - calculated at 2000 sq ft per tree	# of trees 0	0.8	-		
9	Vegetated wall, plantings on a vertical surface	square feet 0	0.6	-		
C	Vegetated or "green" roofs	Square Feet	Factor	Total		
1	Over at least 2" and less than 8" of growth medium	square feet 8,600	0.6	5,160.0		
2	Over at least 8" of growth medium	square feet 0	0.8	-		
D	Permeable Paving***	Square Feet	Factor	Total		
1	Permeable paving over 6" to 24" of soil or gravel	square feet 0	0.4	-		
2	Permeable paving over at least 24" of soil or gravel	square feet 0	0.5	-		
E	Other	Square Feet	Factor	Total		
1	Enhanced tree growth systems***	square feet 0	0.4	-		
2	Renewable energy generation	square feet 0	0.5	-		
3	Approved water features	square feet 0	0.2	-		
F	Bonuses	Square Feet	Factor	Total		
1	Native plant species	square feet 0	0.1	-		
2	Landscaping in food cultivation	square feet 0	0.1	-		
3	Harvested stormwater irrigation	square feet 0	0.1	-		
*** Permeable paving and structural soil together may not qualify for more than one third of the Green Area Ratio score		Green Area Ratio numerator = 5,430				
Total square footage of all permeable paving and enhanced tree growth.		sub-total of sq ft = 9,237				

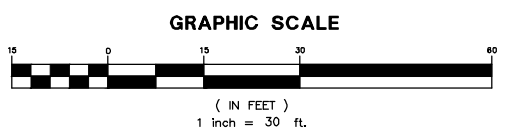
\*REQUIRED GAR SCORE FOR ZONE MU-7 IS 0.25



VICINITY MAP

**NOTES:**

1. HORIZONTAL DATUM: DISTRICT OF COLUMBIA SURVEYOR'S OFFICE MERIDIAN
2. VERTICAL DATUM: DISTRICT OF COLUMBIA DEPARTMENT OF PUBLIC WORKS. (DC DPW COMPOSITE PLAN USED: LM-3-4-NE SEWER)
3. PROPERTY IS ZONED: LOTS 839-842 (R-3)
4. BOUNDARY INFORMATION SHOWN HEREON WAS OBTAINED FROM RECORDS AND VERIFIED IN THE FIELD INSOFAR AS POSSIBLE. PROPERTY LINE DIMENSIONS FROM OFFICIAL CITY RECORDS MAY NOT NECESSARILY AGREE WITH ACTUAL MEASURED DIMENSIONS. ALL PROPERTY LINES IN THE DISTRICT OF COLUMBIA ARE SUBJECT TO CHANGE BY THE OFFICE OF THE SURVEYOR, D.C. THIS SURVEY DOES NOT REFLECT A "SURVEY TO MARK". THE PROPERTY LINE REFLECTED ON THIS SURVEY IS NOT TO BE USED FOR ANY CONSTRUCTION STAKEOUT PURPOSES; A "SURVEY TO MARK" MUST BE APPROVED BY THE OFFICE OF THE SURVEYOR PRIOR TO BEGINNING ANY BUILDING DEMOLITION OR CONSTRUCTION OPERATIONS.
5. THE UNDERGROUND UTILITIES INDICATED HEREON ARE DERIVED FROM PLANS SUPPLIED BY VARIOUS UTILITY COMPANIES. THE LOCATION OF THESE UTILITIES SHOULD BE CONSIDERED APPROXIMATE AND OTHER UTILITIES MAY EXIST WHICH HAVE NO RECORD DATA OR ARE UNDETECTABLE WITH CONVENTIONAL METHODS. NO GUARANTEE OR WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF UTILITY INFORMATION PROVIDED HEREON. UTILITIES LABELED (DATR) ARE SHOWN BASED UPON "DATA ACCORDING TO RECORDS".
6. CONTOUR INTERVAL IS ONE (1) FOOT.

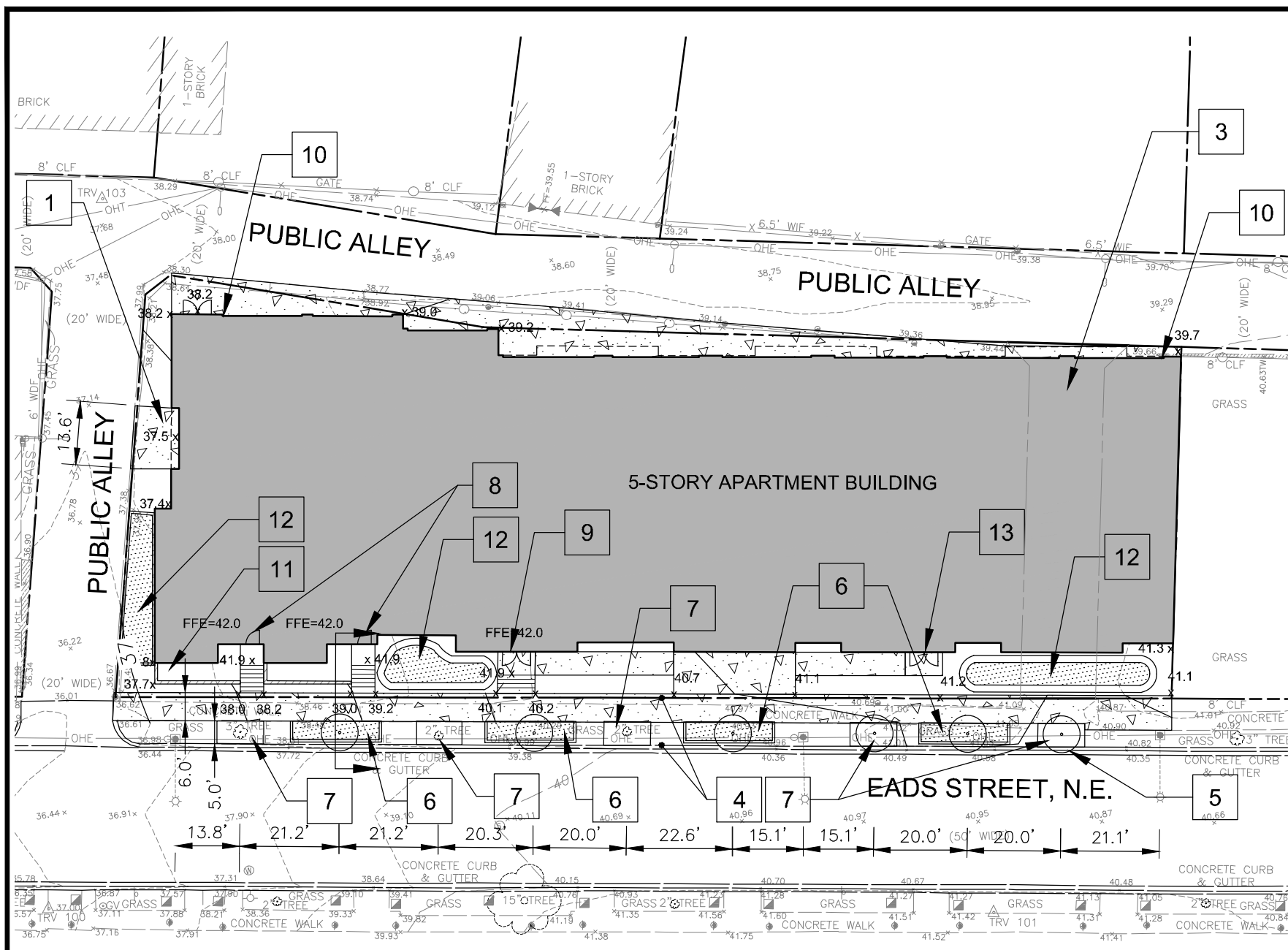


**LEGEND:**

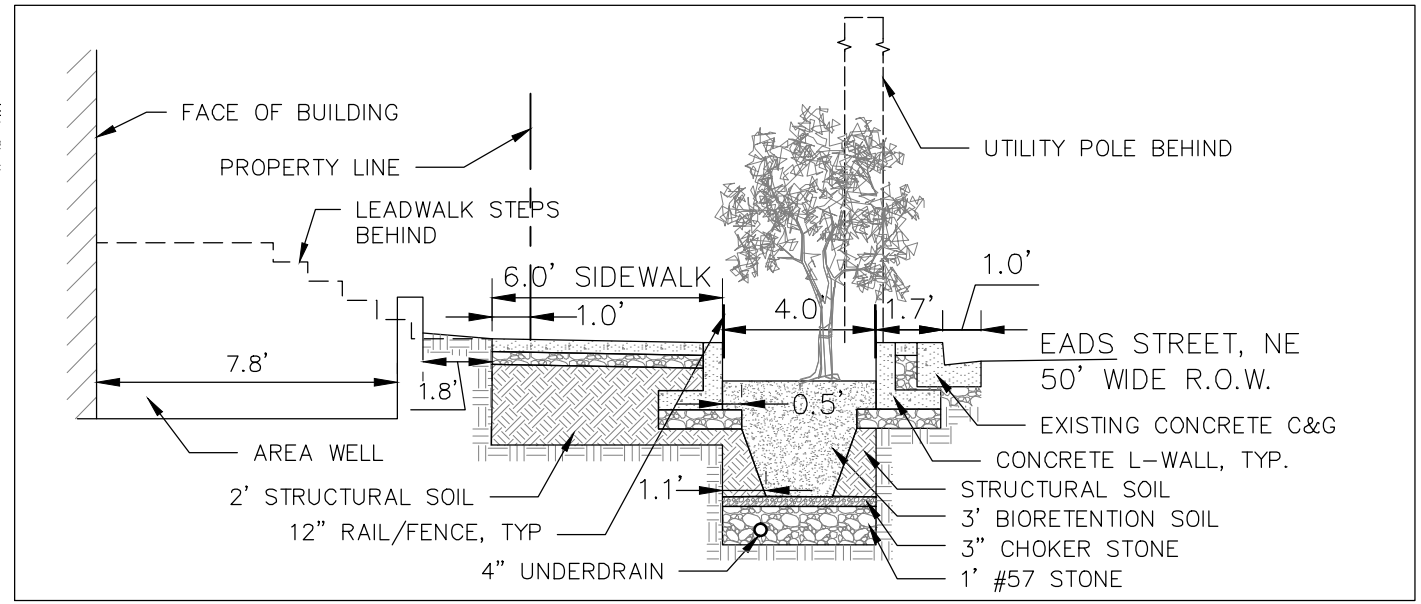
	TREE		CURB AND GUTTER
	ROOF DRAIN		WATER LINE (DATR)
	STORM MANHOLE		OVERHEAD TELEPHONE LINE
	POST		OVERHEAD ELECTRIC LINE
	SINGLE POST SIGN		WOOD FENCE
	COMMUNICATION MANHOLE		WROUGHT IRON FENCE
	POWER POLE WITH STREET LIGHT		CHAIN LINK FENCE
	POWER POLE		DATA ACCORDING TO RECORDS
	LIGHT POLE		REINFORCED CONCRETE PIPE
	ELECTRIC METER		TERRACOTTA PIPE
	ELECTRIC BOX		FINISH FLOOR ELEVATION
	GROUND SHOT		TOP OF WALL
	GAS VALVE		WIDTH DOOR
	SANITARY SEWER MANHOLE		BUILDING
	WATER VALVE		WALL
	FIRE HYDRANT		
	HOSE BIBB		
	WATER MANHOLE		
	WATER METER		
	BOLLARD		
	TRAVERSE		
	BENCHMARK		



**EADS STREET APARTMENTS**  
Existing Conditions Plan



KEYNOTES	
1	LOADING ENTRANCE
2	UNUSED
3	16' WIDE PUBLIC ALLEY TO BE CLOSED
4	HEIGHT ACT MEASURING POINT ELEVATION=40.6 ZONING ACT MEASURING POINT ELEVATION=40.5
5	EXISTING ALLEY CURB CUT TO BE REMOVED. NEW CURB AND SIDEWALK TO BE INSTALLED
6	4'x20' STREETSIDE BIORETENTION WITH STEP-OUT ZONE
7	5'x10' TREE BOX
8	APARTMENT UNIT ENTRANCE
9	MAIN BUILDING ENTRANCE
10	ALLEY PARKING ENTRANCES (BETWEEN KEYNOTE LEADERS)
11	AREA WELL, TYPICAL OF 2
12	ON-SITE BIORETENTION FACILITY
13	COMMUNITY ROOM ENTRANCE

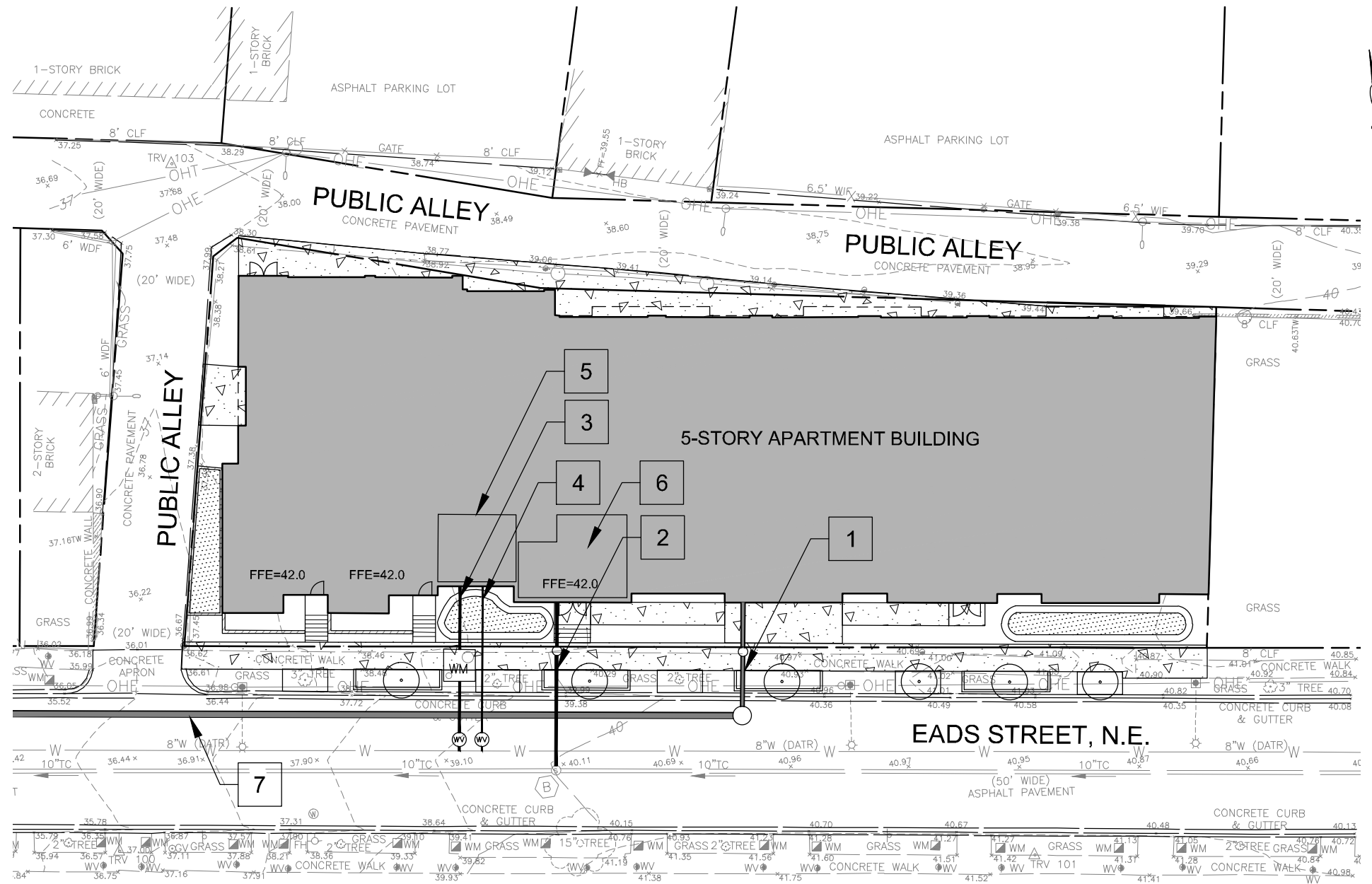


SIDEWALK SECTION  
SCALE: 1"=5'



# EADS STREET APARTMENTS

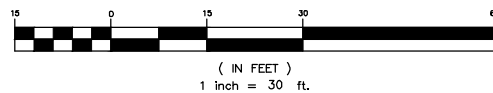
Site Grading Plan

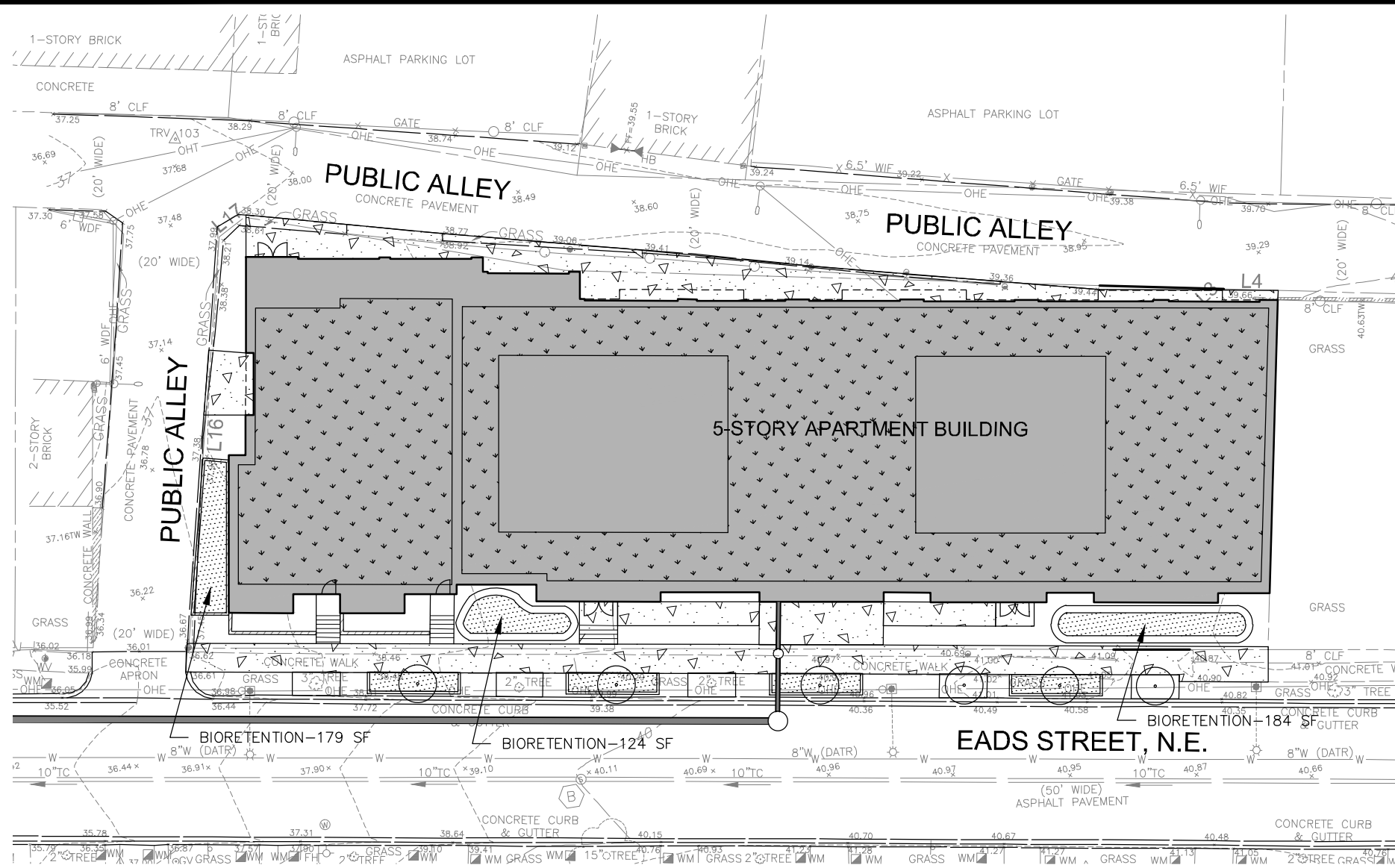


**KEYNOTES**

- 1 STORM CONNECTION TO NEW STORM DRAIN
- 2 SANITARY CONNECTION TO 10" SANITARY SEWER MAIN AT EXISTING MANHOLE
- 3 4" DOMESTIC WATER CONNECTION TO 8" WATER MAIN
- 4 6" FIRE CONNECTION TO 8" WATER MAIN
- 5 WATER ROOM
- 6 ELECTRICAL ROOM
- 7 NEW 15" RCPR STORM DRAIN TO CONNECT TO EXISTING STORM INFRASTRUCTURE IN 34TH STREET, NE

**GRAPHIC SCALE**





**STORMWATER MANAGEMENT NARRATIVE**

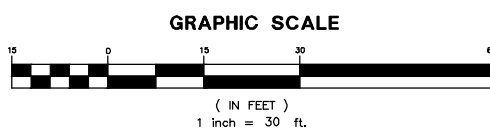
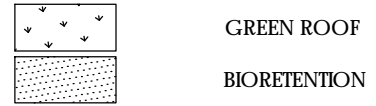
THE SITE WILL MEET ITS STORMWATER RETENTION VOLUME WITH A COMBINATION OF GREEN ROOF AND BIORETENTION. NO WETLANDS, STREAMS, OR WATER COURSES ARE LOCATED ON AND/OR ADJACENT TO THE PROPERTY.

**STORMWATER RUNOFF CALCULATIONS**

2-YEAR PRE-DEVELOPMENT (MEADOW CONDITION; C=0.35) RUNOFF = 0.8 CFS  
 15-YEAR PRE-DEVELOPMENT (MEADOW CONDITION; C=0.35) RUNOFF = 1.1 CFS  
 2-YEAR POST-DEVELOPMENT (IMPERVIOUS CONDITION; C=0.90) RUNOFF = 2.0 CFS  
 15-YEAR POST-DEVELOPMENT (IMPERVIOUS CONDITION; C=0.90) RUNOFF = 2.8 CFS

NOTE: TO MEET DC STORMWATER REGULATIONS, THE 2-YEAR POST-PROJECT RUNOFF WILL BE KEPT BELOW THE PRE-DEVELOPMENT 2-YEAR FLOW ( CFS), AND THE 15-YEAR POST-PROJECT RUNOFF WILL BE LESS THAN THE PRE-PROJECT 15-YEAR FLOW.

**LEGEND**



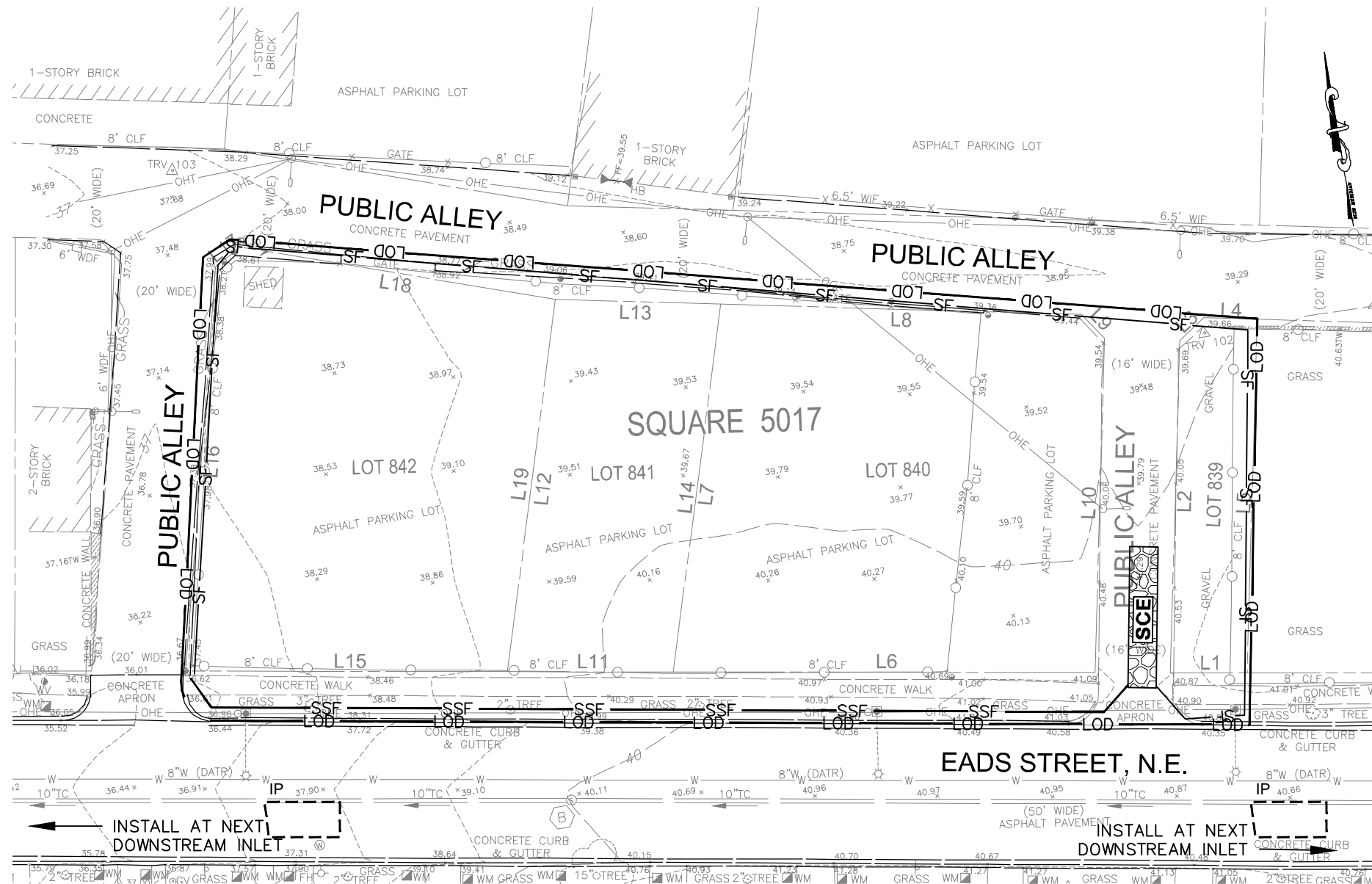
**Table 3.1 Extensive Green Roof Material Specifications**

Material	Specification
Roof	Structural capacity must conform to ASTM E-2397-05, <i>Practice for Determination of Live Loads and Dead Loads Associated with Vegetative Green Roof Systems</i> . In addition, use standard test methods ASTM E2398-05 for <i>Water Capacity and Media Retention of Compatible Drain Layers for Green (Vegetated) Roof Systems</i> and ASTM F 2399-05 for <i>Minimum Media Density for Dead Load Analysis</i> .
Leak Detection System	Optional system to detect and locate leaks in the waterproof membrane
Waterproof Membrane	See Chapter 6 of <i>Weiler and Scholz-Barr (2009)</i> for waterproofing options that are designed to convey water horizontally across the roof surface to drains or gutters. This layer may sometimes act as a root barrier.
Root Barrier	Impermeable liner that impedes root penetration of the membrane
Drainage Layer	Depth of the drainage layer is generally 0.25 to 1.5 inches thick for extensive designs. The drainage layer should consist of synthetic or inorganic materials (e.g., gravel, high density polyethylene (HDPE), etc.) that are capable of retaining water and providing efficient drainage. A wide range of prefabricated water cups or plastic modules can be used, as well as a traditional system of protected roof drains, conduits, and roof leaders. Designers should consult the material specifications as outlined in ASTM E2396 and E2398. Roof drains and emergency overflow must be designed in accordance with the District's construction code (DCMR, Title 12)
Filter Fabric	Generally needle-punched, non-woven, polypropylene geotextile, with the following qualities: <ul style="list-style-type: none"> <li>Strong enough and adequate puncture resistance to withstand stresses of installing other layers of the green roof. Dense as per ASTM D3776 ± 8 oz/yd<sup>2</sup>. Puncture resistance as per ASTM D4833 ± 130 lb. These values can be reduced with submission of a Product Data Sheet and other documentation that demonstrates applicability for the intended use.</li> <li>Adequate tensile strength and tear resistance for long term performance.</li> <li>Allows a good flow of water to the drainage layer. Apparent Opening Size, as per ASTM D4751, of 2.0 mm ± 0.2 mm, with other values based on Product Data Sheet and other documentation as noted above.</li> <li>Allows at least fine roots to penetrate.</li> <li>Adequate resistance to soil borne chemicals or microbial growth both during construction and after completion since the fabric will be in contact with moisture and possibly fertilizer compounds.</li> </ul>
Growth Media	70% to 80% lightweight inorganic materials and a maximum of 30% organic matter (e.g., well-aged compost). Media typically has a maximum water retention of approximately 30%. Material makeup and proof of maximum water retention of the growing media must be provided. Media must provide sufficient nutrients and water holding capacity to support the proposed plant materials. Determine acceptable saturated water permeability using ASTM E2396-05.
Plant Materials	<i>Sedum</i> , herbaceous plants, and perennial grasses that are shallow-rooted, low maintenance, and tolerant of direct sunlight, drought, wind, and frost. See ASTM E2400-06, <i>Guide for Selection, Installation and Maintenance of Plants for Green (Vegetated) Roof Systems</i> .

**Table 3.22 Bioretention Material Specifications**

Material	Specification	Notes
Filter Media	See Table 3.20	Minimum depth of 24 inches (18 inches for small-scale practices). To account for settling/compaction, it is recommended that 110% of the plan volume be utilized.
Mulch Layer	Use aged, shredded hardwood bark mulch	Lay a 2 to 3-inch layer on the surface of the filter bed.
Alternative Surface Cover	Use river stone or pea gravel, cover and jute matting, or turf cover.	Lay a 2 to 3-inch layer of to suppress weed growth.
Top Soil For Turf Cover	Loamy sand or sandy loam texture, with less than 3% clay content, pH corrected to between 6 and 7, and an organic matter content of at least 2%.	3-inch tilled into surface layer.
Geotextile or Choking Layer	An appropriate geotextile fabric that complies with AASHTO M-288 Class 2, latest edition, requirements and has a permeability of at least an order of magnitude higher (10x) than the soil subgrade permeability must be used.	Can use in place of the choking layer where the depth of the practice is limited. Geotextile fabric may be used on the sides of bioretention areas, as well.
	Lay a 2 to 4 inch layer of choker stone (e.g., typically No. 8 or No. 8) washed gravel) over the underdrain stone.	
Underdrain stone	1-inch diameter stone must be double-washed and clean and free of all fines (e.g., ASTM D448 No. 57 or smaller stone).	At least 2 inches above and below the underdrain.
Storage Layer (optional)	To increase storage for larger storm events, chambers, perforated pipe, stone, or other acceptable material can be incorporated below the filter media layer.	
Impermeable Liner (optional)	Where appropriate, use a thirty mil (minimum) PVC Geomembrane liner	
Underdrains, Cleanouts, and Observation Wells	Use 4- or 6-inch rigid schedule 40 PVC pipe, or equivalent corrugated HDPE for small bioretention BMPs, with 3/8-inch perforations at 6 inches on center. Multiple underdrains are necessary for bioretention areas wider than 40 feet, and each underdrain must be located no more than 20 feet from the next pipe or the edge of the bioretention.	Lay the perforated pipe under the length of the bioretention cell, and install non-perforated pipe as needed to connect with the storm drain system or to day light in a stabilized conveyance. Install T's and Y's as needed, depending on the underdrain configuration. Extend cleanout pipes to the surface.

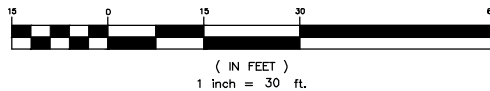




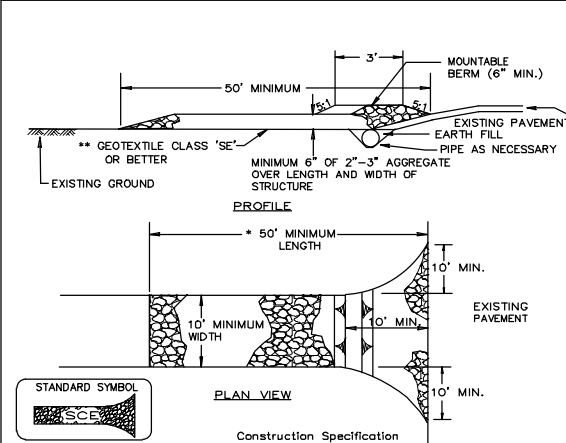
**LEGEND**

- LOD — LIMITS OF DISTURBANCE=21,369 SF
- IP — INLET PROTECTION
- SSF — SUPER SILT FENCE
- SF — SILT FENCE
- SCE — 10'x50' STABILIZED CONSTRUCTION ENTRANCE

**GRAPHIC SCALE**



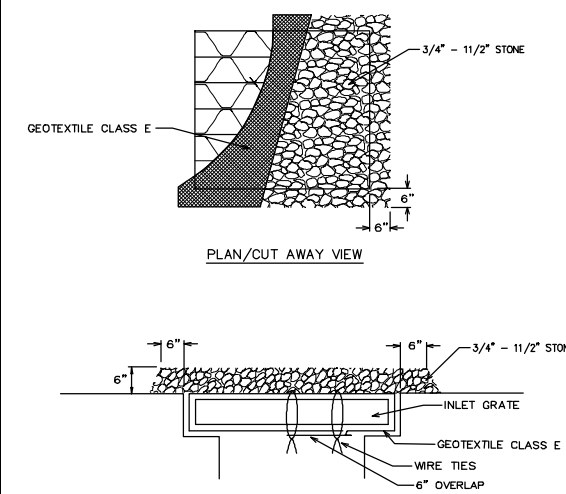
**DETAIL 1 – STABILIZED CONSTRUCTION ENTRANCE**



- LENGTH – MINIMUM OF 50' (\*30' FOR SINGLE RESIDENCE LOT).
- WIDTH – 10' MINIMUM. SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. \*\*THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.
- STONE – CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.
- SURFACE WATER – ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" OF STONE OVER THE PIPE. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY A PIPE WILL NOT BE NECESSARY. PIPE SHOULD BE SIZED ACCORDING TO THE AMOUNT OF RUNOFF TO BE CONVEYED. A 6" MINIMUM WILL BE REQUIRED. THE MOUNTABLE BERM IS REQUIRED ON ALL SCES NOT LOCATED AT A HIGH SPOT.
- LOCATION – A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCE CONSERVATION SERVICE PAGE A-1-3 WATERSHED PROTECTION DIVISION DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH

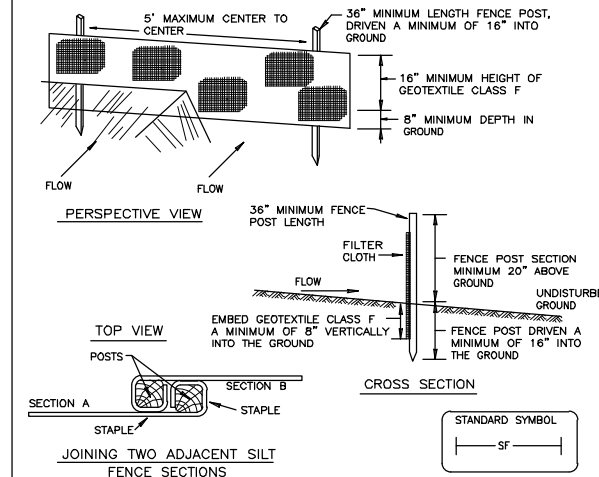
**DETAIL 6B – AT GRADE INLET PROTECTION**



- MAX. DRAINAGE AREA = 1/4 ACRE
- Construction Specifications**
- Lift grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place.
  - Place 3/4" to 1 1/2" stone, 4"-6" thick on the grate to secure the fabric and provide additional filtration.

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCE CONSERVATION SERVICE PAGE B-7-6 WATERSHED PROTECTION DIVISION DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH

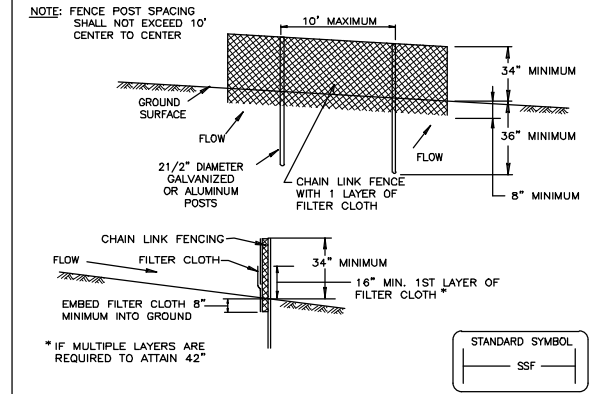
**DETAIL 4 – SILT FENCE**



- CONSTRUCTION SPECIFICATIONS**
- FENCE POSTS SHALL BE A MINIMUM OF 36" LONG DRIVEN 16" MINIMUM INTO THE GROUND. POSTS SHALL BE 1 1/2" X 1 1/2" SQUARE (MINIMUM) CUT, OR 1 3/4" DIAMETER (MINIMUM) ROUND AND SHALL BE OF SOUND QUALITY HARDWOOD. STEEL POSTS WILL BE STANDARD T OR U SECTION WEIGHING NOT LESS THAN 1.00 POUND PER LINEAR FOOT.
  - GEOTEXTILE SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS F:  
TENSILE STRENGTH 50 LBS/N (MIN.) TEST: ASTM D-4595  
TENSILE MODULUS 20 LBS/N (MIN.) TEST: ASTM D-4595  
FLOW RATE 0.3 GAL/FT /MINUTE (MAX.) TEST: ASTM D-5141  
FILTERING EFFICIENCY 75% (MIN.) TEST: ASTM D-5141
  - WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT SEDIMENT BYPASS.
  - SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND MAINTAINED WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHED 30% OF THE FABRIC.

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCE CONSERVATION SERVICE PAGE B-5-3 WATERSHED PROTECTION DIVISION DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH

**DETAIL 5 – SUPER SILT FENCE**

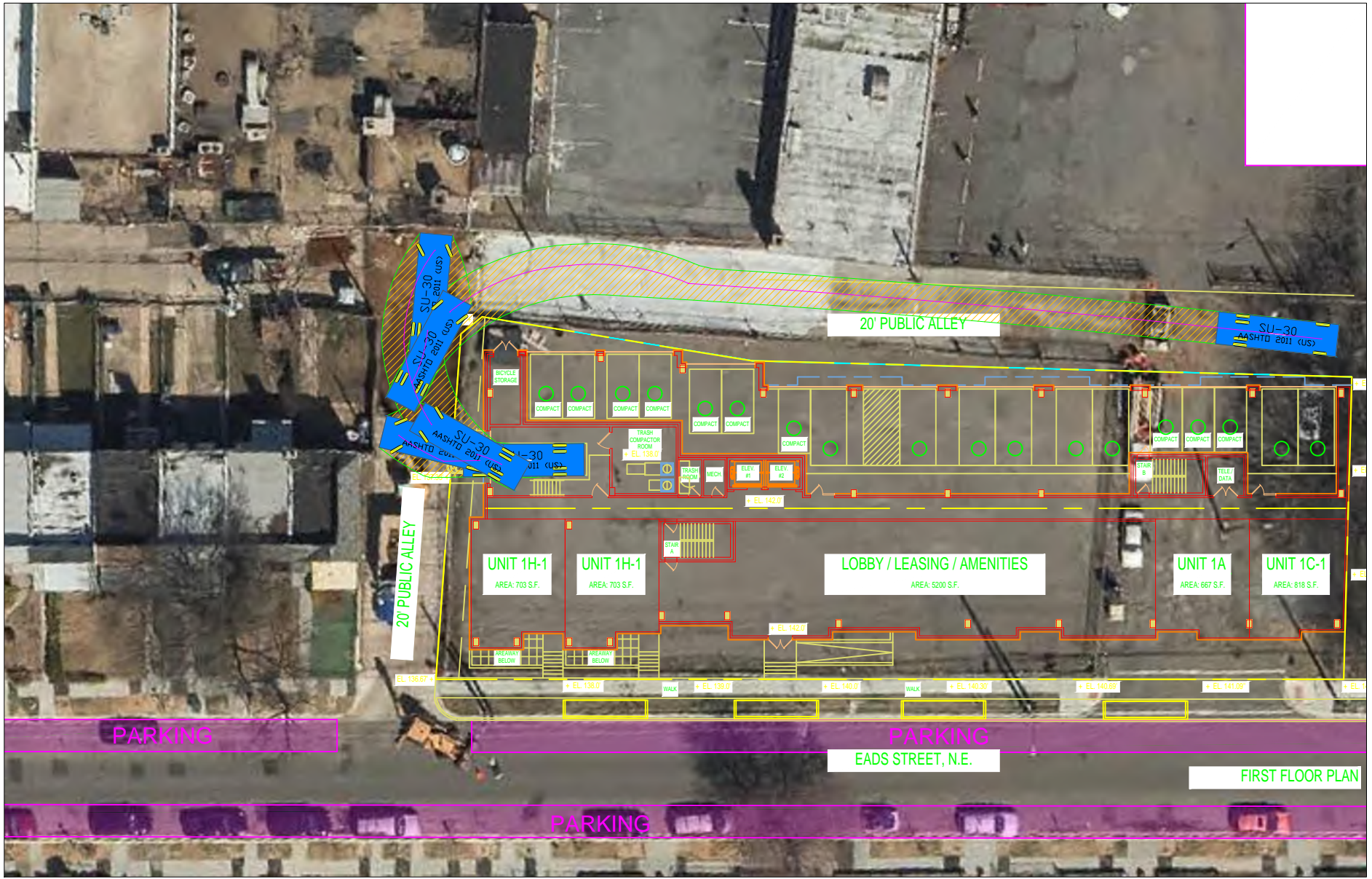


- NOTE:** FENCE POST SPACING SHALL NOT EXCEED 10' CENTER TO CENTER
- CONSTRUCTION SPECIFICATIONS**
- FENCING SHALL BE 42" IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST MARYLAND STATE HIGHWAY DETAILS FOR CHAIN LINK FENCING. THE SPECIFICATION FOR A 6" FENCE SHALL BE USED, SUBSTITUTING 42" FABRIC AND 6" LENGTH POSTS.
  - CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, DRIVE ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE.
  - FILTER CLOTH SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT THE TOP AND MID SECTION.
  - FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 8" INTO THE GROUND.
  - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
  - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT BUILDUPS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE, OR WHEN SILT REACHES 30% OF FENCE HEIGHT.
  - FILTER CLOTH SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH WIRE TIES OR STAPLES AT TOP AND MID SECTION AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS F:  
TENSILE STRENGTH 50 LBS/N (MIN.) TEST: ASTM D-4595  
TENSILE MODULUS 20 LBS/N (MIN.) TEST: ASTM D-4595  
FLOW RATE 0.3 GAL/FT /MINUTE (MAX.) TEST: ASTM D-5141  
FILTERING EFFICIENCY 75% (MIN.) TEST: ASTM D-5141

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCE CONSERVATION SERVICE PAGE B-6-3 WATERSHED PROTECTION DIVISION DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH









Eads Street  
7.22.2016

This project is targeting a minimum of 70 points.

M = MANDATORY  
# = OPTIONAL POINTS

## 2015 Enterprise Green Communities Criteria Checklist

This checklist provides an overview of the technical requirements within the Enterprise Green Communities Criteria. **To achieve Enterprise Green Communities Certification, all projects must achieve compliance with the Criteria mandatory measures applicable to that construction type. Additionally, New Construction projects must achieve 35 optional points, Substantial Rehab projects must achieve 30 optional points, and Moderate Rehab projects must also achieve 30 optional points.**

### 1. INTEGRATIVE DESIGN

YES  NO  MAYBE

M

#### 1.1a Goal Setting

Develop an integrative design process that works best for your project team and intentions. At minimum, document:

1. A statement of the overall green development goals of the project and the expected intended outcomes from addressing those goals.
2. A summary of the integrative process that was used to select the green building strategies, systems and materials that will be incorporated into the project.
3. A description of how progress and success against these goals will be measured throughout the completion of design, construction and operation to ensure that the green features are included and correctly installed.

YES  NO  MAYBE

M

#### 1.1b Criteria Documentation

Create design and construction documentation to include information on implementation of appropriate Enterprise Green Communities Criteria.

YES  NO  MAYBE

9

#### 1.1c Designing for Project Performance

Identify how the expected performance of your project compares to the actual performance of other projects in your portfolio and/or community.

YES  NO  MAYBE

M

#### 1.2a Resident Health and Well-Being: Design for Health

Identify potential resident health factors and design your project to address resident health and well-being by using the matrix provided on pages 22 and 23.

YES  NO  MAYBE

12

#### 1.2b Resident Health and Well-Being: Health Action Plan

At pre-design and continuing throughout the project life cycle, collaborate with public health professionals and community stakeholders to assess, identify, implement and monitor achievable actions to enhance health-promoting features of the project and minimize features that could present health risks. Specifically, create a Health Action Plan and integrate the selected interventions and a plan for monitoring and evaluating progress per the full criterion.

YES  NO  MAYBE

M

#### 1.3a Resilient Communities: Design for Resilience *(New Construction and Substantial Rehab only)*

Given your project building type, location and expected resident population, identify a project characteristic that would most likely impact your project's ability to withstand an unexpected weather event or loss of power. Select at least one criterion from the given list that would help mitigate that impact, and incorporate this within your project plans and design. Include a short narrative providing your rationale for selecting this criterion above the others.

Surface Stormwater Management  
Advanced Water Conservation  
Resilient Energy Systems: Islandable Power



M = MANDATORY  
# = OPTIONAL POINTS

YES  NO  MAYBE

15

### INTEGRATIVE DESIGN *(continued)*

#### 1.3b Resilient Communities: Multi-Hazard Risk/ Vulnerability Assessment

Carry out a Vulnerabilities Assessment and implement building elements designed to enable the project to adapt to, and mitigate, climate impacts given the project location, building/construction type and resident population.

0

SUBTOTAL OPTIONAL POINTS

### 2. LOCATION + NEIGHBORHOOD FABRIC

*New Construction:* All new construction projects must earn optional points under Criterion 2.8 Access to Public Transportation, **OR** earn 8 optional points through selecting one or more of the following:

- 2.7 Preservation of and Access to Open Space
- 2.9 Improving Connectivity to the Community
- 2.12 Access to Fresh, Local Foods
- 2.13 LEED for Neighborhood Development Certification
- 2.14 Local Economic Development and Community Wealth Creation

YES  NO  MAYBE

M

#### 2.1 Sensitive Site Protection

Do not locate new projects, including buildings, built structures, roads or parking areas, on portions of sites that meet any of the following provisions:

1. Land within 100 feet of wetlands, including isolated wetlands or streams. Maintain or establish riparian buffer using native vegetation where possible. Bike and foot paths are allowed if at least 25 feet from the wetlands boundary.
2. Land on slope greater than 15%.
3. Land with prime soils, unique soils or soils of state significance per USDA designations.
4. Public parkland.
5. Land that is specifically identified as an existing habitat for any species on federal or state threatened or endangered lists.
6. Land that is within the Special Flood Hazard Areas (SFHA) as identified by FEMA on the Flood Insurance Rate Map.

YES  NO  MAYBE

M

#### 2.2 Connections to Existing Development and Infrastructure *(Except for projects located on rural tribal lands, in colonias communities, or in communities with populations of less than 10,000)*

Locate the project on a site with access to existing roads, water, sewers and other infrastructure within or contiguous to (having at least 25% of the perimeter bordering) existing development. Connect the project to the pedestrian grid.

YES  NO  MAYBE

M

#### 2.3 Compact Development

At a minimum, build to the residential density (dwelling units/acre) of the census block group in which your project is located.

YES  NO  MAYBE

5 or 7

#### 2.4 Compact Development

Exceed the residential density (dwelling units/acre) of the census block group in which your project is located. Exceed by 2x for [5 points]; exceed by 3x for [7 points].

7

9.52 Households per acre - current  
59/.41 = 143 dwelling units/acre



M = MANDATORY  
# = OPTIONAL POINTS

LOCATION + NEIGHBORHOOD FABRIC (continued)	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE 0.5 miles from project: Post Office      Elementary School Mini Supermarket      Public Park Community center	<b>M</b> <b>2.5 Proximity to Services</b> Locate the project within a 0.5-mile walk distance of at least four, or a 1-mile walk distance of at least seven, of the listed services. For projects that qualify as Rural/Tribal/Small Town, locate the project within 5 miles of at least four of the listed services.
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE Located within 0.25 of Anacostia Park	<b>M</b> <b>2.6 Preservation of and Access to Open Space for Rural/Tribal/Small Towns</b> Set aside a minimum of 10% (minimum of 0.25 acre) of the total project acreage as non-paved open space for use by all residents <b>OR</b> locate the project within a 0.25-mile walk distance of dedicated public non-paved open space that is a minimum of 0.75 acres.
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> MAYBE	<b>6 max</b> <b>2.7 Preservation of and Access to Open Space</b> Set aside a percentage of non-paved open space for use by all residents. 20% [2 points]; 30% [4 points]; 40% + written statement of preservation/conservation policy for set-aside land [6 points].
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<b>8 or 10</b> <b>2.8 Access to Public Transportation</b> Locate projects within a 0.5-mile walk distance of transit services combined (bus, rail and/or ferry), constituting at least 60 or more transit rides per weekday, with some type of weekend ride option. [8 points]  For projects that qualify as Rural/Tribal/Small Town, locate the project within a 5-mile distance of at least one of the following transit options: 1) vehicle share program; 2) dial-a-ride program; 3) employer vanpool; 4) park-and-ride; or 5) public-private regional transportation. [8 points]  <i>For an additional 2 points:</i> Locate the project along dedicated bike trails or lanes that lead to transit services or stations (bus, rail and ferry) within 3 miles.
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE 2 points for bike storage	<b>2 to 8</b> <b>2.9 Improving Connectivity to the Community</b> Improve access to community amenities through at least one of the transit, auto or biking mobility measures listed. May evaluate car share for additional 1 point at a later date.
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> MAYBE	<b>5 max</b> <b>2.10 Passive Solar Heating/Cooling</b> Design and build with passive solar design, orientation and shading that meet specified guidelines.
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> MAYBE	<b>4</b> <b>2.11 Brownfield Site or Adaptive Reuse Building</b> Rehabilitate an existing structure that was not previously used as housing or locate the project on a brownfield site.
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> MAYBE	<b>6</b> <b>2.12 Access to Fresh, Local Foods</b> Pursue one of three options to provide residents and staff with access to fresh, local foods, including neighborhood farms and gardens, community-supported agriculture, or proximity to farmers markets.
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> MAYBE	<b>4</b> <b>2.13 LEED for Neighborhood Development Certification</b> Locate building(s) in a Stage 2 Pre-Certified or Stage 3 Certified Neighborhood Development.
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<b>6 max</b> <b>2.14 Local Economic Development and Community Wealth Creation</b> Demonstrate that local preference for construction employment and subcontractor hiring was part of your bidding process [2 points] <b>OR</b> demonstrate that you achieved at least 20% local employment [3 points] <b>OR</b> provide physical space for small business, nonprofits, and/or skills and workforce education [3 points].
<b>19</b> SUBTOTAL OPTIONAL POINTS	



M = MANDATORY  
# = OPTIONAL POINTS

3. SITE IMPROVEMENTS	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<b>M</b> <b>3.1 Environmental Remediation</b> Conduct an environmental site assessment to determine whether any hazardous materials are present on-site; mitigate any found.
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<b>M</b> <b>3.2 Erosion and Sedimentation Control</b> (Except for infill sites with buildable area smaller than one acre) Implement EPA's Best Management Practices for Construction Site Stormwater Runoff Control, or local requirements, whichever is more stringent.
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<b>M</b> <b>3.3 Low-Impact Development</b> Projects located on greenfields must meet the list of low-impact development criteria.
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<b>M</b> <b>3.4 Landscaping</b> If providing plantings, all should be native or adapted to the region, appropriate to the site's soil and microclimate, and none of the new plants is an invasive species. Reseed or xeriscape all disturbed areas.
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<b>M</b> <b>3.5a Efficient Irrigation and Water Reuse</b> If irrigation is used, install an efficient irrigation or water reuse system per the guidelines.
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> MAYBE	<b>4 or 8</b> <b>3.5b Efficient Irrigation and Water Reuse</b> Install an efficient irrigation system equipped with a WaterSense-labeled weather-based irrigation controller (WBIC) <b>OR</b> at least 50% of the site's irrigation should be satisfied by reusing water.
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<b>4 or 8</b> <b>3.6 Surface Stormwater Management</b> Retain, infiltrate and/or harvest the first 1.0 inch of rain that falls [4 points] <b>OR</b> as calculated for a 24-hour period of a one-year (1) storm event, so that no stormwater is discharged to drains/inlets. [8 points] For both options, permanently label all storm drains and inlets.
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> MAYBE	<b>1</b> <b>3.7 Reducing Heat-Island Effect: Paving</b> Use light-colored, high-albedo materials and/or an open-grid pavement, with a minimum solar reflectance of 0.3, over at least 50% of the site's hardscaped area.
<b>4</b> SUBTOTAL OPTIONAL POINTS	
4. WATER CONSERVATION	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<b>M</b> <b>4.1 Water-Conserving Fixtures</b> Install water-conserving fixtures in all units and any common facilities with the following specifications. <i>Toilets:</i> WaterSense-labeled and 1.28 gpf; <i>Urinals:</i> WaterSense-labeled and 0.5 gpf; <i>Showerheads:</i> WaterSense-labeled and 2.0 gpm; <i>Kitchen faucets:</i> 2.0 gpm; <i>Lav faucets:</i> WaterSense-labeled and 1.5 gpm  <b>AND</b> for all single-family homes and all dwelling units in buildings three stories or fewer, the static service pressure must not exceed 60 psi.



M = MANDATORY  
# = OPTIONAL POINTS

<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	6 max	<b>4.2 Advanced Water Conservation</b> Reduce water consumption either by installing water-conserving fixtures in all units and all common space bathrooms with the following specifications: <u>Toilets: WaterSense-labeled and 1.1 gpf [1 point]; Showerheads: WaterSense-labeled and 1.5 gpm [1 point]; Kitchen faucets: 1.5 gpm and lav faucets: WaterSense-labeled and 1.0 gpm [1 point]</u> <b>OR</b> Reduce total indoor water consumption by at least 30% compared to the baseline indoor water consumption chart, through a combination of your choosing. [6 points maximum]
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> MAYBE	4	<b>4.3 Leaks and Water Metering</b> Conduct pressure-loss tests and visual inspections to determine if there are any leaks; fix any leaks found; and meter or submeter each dwelling unit with a technology capable of tracking water use. Separately meter outdoor water consumption.
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> MAYBE	4	<b>4.4 Efficient Plumbing Layout and Design</b> To minimize water loss from delivering hot water, the hot water delivery system shall store no more than 0.5 gallons of water in any piping/manifold between the hot water source and any hot water fixture.
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> MAYBE	6 max	<b>4.5 Water Reuse</b> Harvest, treat, and reuse rainwater and/or greywater to meet a portion of the project's total water needs: 10% reuse [3 points]; 20% reuse [4 points]; 30% reuse [5 points]; 40% reuse [6 points]
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> MAYBE	8	<b>4.6 Access to Potable Water During Emergencies</b> Provide residents with access to potable water in the event of an emergency that disrupts normal access to potable water, including disruptions related to power outages that prevent pumping water to upper floors of multifamily buildings or pumping of water from on-site wells, per one of the three options.
<b>2</b>		SUBTOTAL OPTIONAL POINTS

**5. ENERGY EFFICIENCY**

<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	M	<b>5.1a Building Performance Standard (New Construction: single-family and low-rise multifamily)</b> Certify each dwelling unit in the project through the ENERGY STAR New Homes program.
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> MAYBE	M	<b>5.1b Building Performance Standard (New Construction: mid-rise and high-rise multifamily, with some exceptions)</b> Certify the project through the ENERGY STAR Multifamily High-Rise program (MFHR) <b>OR</b> follow the combined MFHR and LEED Commissioning Path outlined in the criterion. <i>Exception:</i> Multifamily buildings that are four or five stories, in which all dwelling units have their own heating, cooling and hot water systems, should comply with Criterion 5.1a and certify each dwelling unit per ENERGY STAR Certified New Homes.

If the building is certified as ES Homes, it does not need to be certified under ES MFHR



M = MANDATORY  
# = OPTIONAL POINTS

<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	M	<b>5.1c Building Performance Standard (Substantial and Moderate Rehab: single-family and low-rise multifamily)</b> For each dwelling unit, achieve a HERS Index score of 85 or less. <i>Exception:</i> Substantial rehabs of buildings with walls made only of brick/masonry that are three stories or fewer and built before 1980, as well as moderate rehabs of buildings that are three stories or fewer and built before 1980, are permitted to instead achieve a HERS Index score of 100 or less for each dwelling unit.
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	M	<b>5.1d Building Performance Standard (Substantial and Moderate Rehab: mid-rise and high-rise)</b> Demonstrate that the energy performance of the completed building will be equivalent to ASHRAE 90.1-2010 using an energy model created by a qualified energy services provider per Appendix G.
<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> MAYBE	5 to 12	<b>5.2a Additional Reductions in Energy Use</b> Design and construct a building that is projected to be at least 5% more efficient than what is required of the project by Criteria 5.1a-d. (Projects receiving points in Criterion 5.2a may not receive points per Criterion 5.2b)
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> MAYBE	12	<b>5.2b Advanced Certification: Nearing Net Zero</b> Certify the project in a program that requires advanced levels of building envelope performance such as PHIUS, Living Building Challenge and/or DOE Zero Energy Ready Home. (Projects receiving points in Criterion 5.2b may not receive points per Criterion 5.2a)
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	M	<b>5.3 Sizing of Heating and Cooling Equipment</b> Size and select heating and cooling equipment in accordance with the Air Conditioning Contractors of America (ACCA) Manuals J and S or ASHRAE handbooks.
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	M	<b>5.4 ENERGY STAR Appliances</b> If providing appliances, install ENERGY STAR clothes washers, dishwashers and refrigerators. If appliances will not be installed or replaced at this time, specify that, at the time of installation or replacement, ENERGY STAR models must be used.
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	M	<b>5.5 Lighting</b> Follow the guidance for high-efficacy lighting controls and other characteristics for all permanently installed lighting fixtures in project dwelling units, common spaces and exterior
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	M	<b>5.6 Electricity Meter</b> <i>New Construction and Substantial Rehab</i>
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> MAYBE	6	<i>Moderate Rehab (Except for single-room occupancy and designated supportive housing dwelling units)</i> Install individual or submetered electric meters for all dwelling units.
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> MAYBE	4	<b>5.7a Photovoltaic/Solar Hot Water Ready</b> Orient, design, engineer, wire and/or plumb the development to accommodate installation of photovoltaic (PV) or solar hot water system in the future.



M = MANDATORY  
# = OPTIONAL POINTS

<input type="radio"/> YES <input checked="" type="radio"/> NO <input type="radio"/> MAYBE	10 max	<b>ENERGY EFFICIENCY (continued)</b> <b>5.7b Renewable Energy</b> Install photovoltaic (PV) panels or other electric-generating renewable energy source to provide a specified percentage of the project's estimated total energy demand or water heating energy demand. (Projects may earn points through Criterion 5.7b or 5.8b, but not both.)																								
		<table border="1"> <thead> <tr> <th></th> <th>5%</th> <th>10%</th> <th>20%</th> <th>30%</th> <th>40%</th> </tr> </thead> <tbody> <tr> <td>Single-story / Single-family</td> <td>—</td> <td>—</td> <td>6</td> <td>8</td> <td>10</td> </tr> <tr> <td>2 to 3 stories</td> <td>—</td> <td>6</td> <td>8</td> <td>10</td> <td>—</td> </tr> <tr> <td>4 stories or more</td> <td>6</td> <td>8</td> <td>10</td> <td>—</td> <td>—</td> </tr> </tbody> </table>		5%	10%	20%	30%	40%	Single-story / Single-family	—	—	6	8	10	2 to 3 stories	—	6	8	10	—	4 stories or more	6	8	10	—	—
	5%	10%	20%	30%	40%																					
Single-story / Single-family	—	—	6	8	10																					
2 to 3 stories	—	6	8	10	—																					
4 stories or more	6	8	10	—	—																					
<input type="radio"/> YES <input checked="" type="radio"/> NO <input type="radio"/> MAYBE	8	<b>5.8a Resilient Energy Systems: Floodproofing</b> Conduct floodproofing, including perimeter floodproofing (barriers/shields), of lower floors. Design and install building systems as specified by the full criterion so that the operation of those systems will not be grossly affected in case of a flood.																								
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	4 to 8 <b>4</b>	<b>5.8b Resilient Energy Systems: Islandable Power</b> Provide emergency power through an islandable photovoltaic (PV) system or an efficient and permanent generator that will offer at least limited electricity for critical circuits during power outages per one of the three options listed. (Projects may earn points through Criterion 5.7b or 5.8b, but not both.) <b>4 points for providing a generator for the project.</b>																								
	<b>4</b>	SUBTOTAL OPTIONAL POINTS																								

**6. MATERIALS**

<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	<b>6.1 Low / No VOC Paints, Coatings and Primers</b> All interior paints and primers must have VOC levels, in grams per liter, less than or equal to the thresholds established by South Coast Air Quality Management District (SCAQMD) Rule 1113.
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	<b>6.2 Low / No VOC Adhesives and Sealants</b> All adhesives and sealants (including caulks) must have VOC levels, in grams per liter, less than or equal to the thresholds established by the South Coast Air Quality Management District Rule 1168.
<input type="radio"/> YES <input type="radio"/> NO <input checked="" type="radio"/> MAYBE	3 max	<b>6.3 Recycled Content Material</b> Incorporate building materials that are composed of at least 25% post-consumer recycled content or at least 50% post-industrial recycled content. [1 point] Building materials that make up at least 75% of their project component each receive 1 point.
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	4 max <b>2</b>	<b>6.4 Regional Materials</b> Use products that were extracted, processed and manufactured within 500 miles of the project for a minimum of 50%, based on cost, of the building materials' value. Select any or all of these options (each material can qualify for 1 point): <ul style="list-style-type: none"> <li>Framing materials</li> <li>Exterior materials (e.g., siding, masonry, roofing)</li> <li>Flooring materials</li> <li>Concrete/cement and aggregate material</li> <li>Drywall/interior sheathing materials</li> </ul>



M = MANDATORY  
# = OPTIONAL POINTS

<input type="radio"/> YES <input checked="" type="radio"/> NO <input type="radio"/> MAYBE	1	<b>MATERIALS (continued)</b> <b>6.5 Certified, Salvaged and Engineered Wood Products</b> For at least 25% of all structural wood products, by cost or value, commit to using either FSC-certified, salvaged products or engineered framing materials without urea formaldehyde.
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	<b>6.6 Composite Wood Products that Emit Low/No Formaldehyde</b> All composite wood products must be certified as compliant with California 93120 Phase 2 OR, if using a composite wood product that does not comply with California 93120 Phase 2, all exposed edges and sides must be sealed with low-VOC sealants, per Criterion 6.2.
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	<b>6.7a Environmentally Preferable Flooring</b> Do not install carpets in building entryways, laundry rooms, bathrooms, kitchens/kitchenettes, utility rooms or any rooms built on foundation slabs. Where installed, all carpet products must meet the Carpet and Rug Institute's Green Label or Green Label Plus certification for carpet, pad and carpet adhesives. Any hard surface flooring products must be either ceramic tile or solid unfinished hardwood floors, or meet the Scientific Certification System's FloorScore program criteria (including pre-finished hardwood flooring).
<input type="radio"/> YES <input checked="" type="radio"/> NO <input type="radio"/> MAYBE	6	<b>6.7b Environmentally Preferable Flooring: Throughout Building</b> Use non-vinyl, non-carpet floor coverings throughout each building in the project.
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	<b>6.8 Mold Prevention: Surfaces</b> Use materials that have durable, cleanable surfaces throughout bathrooms, kitchens and laundry rooms. Materials installed in these rooms should not be prone to deterioration due to moisture intrusion or encourage the growth of mold.
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	M	<b>6.9 Mold Prevention: Tub and Shower Enclosures</b> Use moisture-resistant backing materials such as cement board, fiber cement board or equivalent per ASTM #D3273 behind tub/shower enclosures. Projects using a one-piece fiberglass tub/shower enclosure are exempt from this requirement.
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	12 max <b>8</b>	<b>6.10 Asthmagin-Free materials</b> Do not install products that contain ingredients that are known to cause or trigger asthma. Key products to avoid are: <ul style="list-style-type: none"> <li>Insulation: Do not use spray polyurethane foam (SPF) or formaldehyde-containing fiberglass batts. [4 points]</li> <li>Flooring: Do not use flexible vinyl (PVC) roll or sheet flooring or carpet-backed with vinyl with phthalates. Do not use fluid applied finish floors. [4 points]</li> <li>Wall coverings: Do not use wallpaper made from vinyl (PVC) with phthalates or site-applied high-performance coatings that are epoxy or polyurethane based. [4 points]</li> <li>Composite wood: Use only ULEF products for cabinetry, subflooring and other interior composite wood uses. [4 points]</li> </ul>
<input checked="" type="radio"/> YES <input type="radio"/> NO <input type="radio"/> MAYBE	5 <b>5</b>	<b>6.11 Reduced Heat-Island Effect: Roofing</b> Use an ENERGY STAR-certified roofing product for 100% of the roof area OR install a "green" (vegetated) roof for at least 50% of the roof area and ENERGY STAR-certified roofing product for the remainder of the roof area.



M = MANDATORY  
# = OPTIONAL POINTS

YES  NO  MAYBE

M or  
6 max

**MATERIALS (continued)**

**6.12 Construction Waste Management**

Commit to following a waste management plan that reduces non-hazardous construction and demolition waste through recycling, salvaging or diversion strategies through one of the three options. Achieve optional points by going above and beyond the requirement.

YES  NO  MAYBE

3

**6.13 Recycling Storage**

Provide separate bins for the collection of trash and recycling for each dwelling unit and all shared community rooms (if applicable).

3

Additionally, in multifamily buildings, provide at least one easily accessible, permanent and dedicated indoor area for the collection and storage of materials for recycling. In single-family homes, points will be accrued only if curb-side recycling pickup is available.

Collected materials should include, at a minimum, paper, cardboard, glass, metals and plastics.

18

SUBTOTAL OPTIONAL POINTS

**7. HEALTHY LIVING ENVIRONMENT**

YES  NO  MAYBE

M

**7.1 Ventilation**

*New Construction and Substantial Rehab*

YES  NO  MAYBE

12 max

*Moderate Rehab*

For each dwelling unit, in full accordance with ASHRAE 62.2-2010, install a local mechanical exhaust system in each bathroom [4 points], a local mechanical exhaust system in each kitchen [4 points], and a whole-house mechanical ventilation system [4 points].

For each multifamily building of four stories and more, in full accordance with ASHRAE 62.1-2010, install a mechanical ventilation system for all hallways and common spaces [3 points].

For all project types, in addition to the above requirements:

- All systems and associated ductwork must be installed per manufacturer's recommendations.
- All individual bathroom fans must be ENERGY STAR labeled, wired to turn on with the light switch, and equipped with a humidistat sensor, timer or other control (e.g., occupancy sensor, delay off switch, ventilation controller).
- If using central ventilation systems with rooftop fans, each rooftop fan must be direct-drive and variable-speed with speed controller mounted near the fan. Fans with design CFM 300-2000 must also have an ECM motor.

YES  NO  MAYBE

M

**7.2 Clothes Dryer Exhaust**

Clothes dryers must be exhausted directly to the outdoors using rigid-type ductwork (except for condensing dryers, which must be plumbed to a drain).



M = MANDATORY  
# = OPTIONAL POINTS

YES  NO  MAYBE

M

**HEALTHY LIVING ENVIRONMENT (continued)**

**7.3 Combustion Equipment**

For new construction and rehab projects, specify power-vented or direct vent equipment when installing any new combustion appliance for space or water heating that will be located within the conditioned space.

In Substantial and Moderate Rehabs, if there is any combustion equipment located within the conditioned space for space or water heating that is not power-vented or direct vent and that is not scheduled for replacement, conduct initial combustion safety testing per the given guidelines.

Install one hard-wired carbon monoxide (CO) alarm with battery backup function for each sleeping zone, placed per National Fire Protection Association (NFPA) 720.

YES  NO  MAYBE

9 or 11

**7.4 Elimination of Combustion Within the Conditioned Space**

No combustion equipment may be used for cooking (to include, but not limited to ranges, cooktops, stoves, ovens) as part of the building project [9 points] OR no combustion equipment may be used as part of the building project [11 points].

9

YES  NO  MAYBE

M

**7.5 Vapor Retarder Strategies**

Install vapor barriers that meet specified criteria appropriate for the foundation type.

YES  NO  MAYBE

M

**7.6 Water Drainage (For all New Construction projects and those Rehab projects that include replacing particular assemblies called out below)**

Provide drainage of water away from walls, windows and roofs by implementing the list of techniques.

YES  NO  MAYBE

M

**7.7 Mold Prevention: Water Heaters**

Provide adequate drainage for water heaters that includes drains or catch pans with drains piped to the exterior of the dwelling.

YES  NO  MAYBE

M

**7.8 Radon Mitigation**

For New Construction in EPA Zone 1 areas, install passive radon-resistant features below the slab and a vertical vent pipe with junction box within 10 feet of an electrical outlet in case an active system should prove necessary in the future. For Substantial Rehab projects in EPA Zone 1, test and mitigate per the specified protocols.

YES  NO  MAYBE

M

**7.9 Garage Isolation**

- Provide a continuous air barrier between the conditioned space and any garage space to prevent the migration of any contaminants into the living space. Visually inspect common walls and ceilings between attached garages and living spaces to ensure that they are air-sealed before insulation is installed.
- Do not install ductwork or air handling equipment in a garage.
- Fix all connecting doors between conditioned space and garage with gaskets or otherwise make substantially airtight with weather stripping.
- Install one hard-wired carbon monoxide (CO) alarm with battery backup function for each sleeping zone of the project, placed per National Fire Protection Association (NFPA) 720.

YES  NO  MAYBE

M

**7.10 Integrated Pest Management**

Seal all wall, floor, and joint penetrations with low-VOC caulking or other appropriate nontoxic sealing methods to prevent pest entry.



M = MANDATORY  
# = OPTIONAL POINTS

HEALTHY LIVING ENVIRONMENT (continued)	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<p><b>9</b></p> <p><b>7.11a Beyond ADA: Universal Design (New Construction)</b> Design a minimum of 15% of the dwelling units (no fewer than one) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines. Design the remainder of the ground-floor units and elevator-reachable units in accordance with ICC/ANSI A117.1, Type B.</p>
<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> MAYBE	<p><b>7 or 9</b> <b>N/A</b></p> <p><b>7.11b Beyond ADA: Universal Design (Substantial and Moderate Rehab)</b> Design a minimum of 10% of the dwelling units (one, at minimum) in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines. [7 points] <i>For an additional 2 points:</i> Design the remainder of the ground-floor units and elevator-reachable units with accessible unit entrances designed to accommodate people who use a wheelchair.</p>
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<p><b>M</b></p> <p><b>7.12 Active Design: Promoting Physical Activity Within the Building</b> Situate at least one building stairway per the criterion to encourage use <b>OR</b> emphasize at least one strategy inside the building designed to increase frequency and duration of physical activity per the criterion.</p>
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> MAYBE	<p><b>10</b></p> <p><b>7.13 Active Design: Staircases and Building Circulation</b> A staircase must be accessible and visible from the main lobby as well as visible within a 25-foot walking distance from any edge of lobby. Ensure that no turns or obstacles prevent visibility of or accessibility to the qualifying staircase from the lobby, and that the staircase is encountered before or at the same time as the elevators.  From the corridor, accessible staircases should be made visible by: Providing transparent glazing of at least 10 square feet (1 square meter) at all stair doors or at a side light <b>OR</b> providing magnetic door holds on all doors leading to the stairs <b>OR</b> removing door enclosures/ vestibules.</p>
<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> MAYBE	<p><b>9</b></p> <p><b>7.14 Interior and Outdoor Activity Spaces for Children and Adults</b> Provide an on-site dedicated recreation space with exercise or play opportunities for adults and/or children that is open and accessible to all residents; see criterion for specifics.</p>
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> MAYBE	<p><b>M</b></p> <p><b>7.15 Reduce Lead Hazards in Pre-1978 Buildings (Substantial Rehab)</b> Conduct lead risk assessment or inspection to identify lead hazards, then control for these per EPA or state/local laws and requirements.</p>
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<p><b>10</b></p> <p><b>7.16 Smoke-Free Building</b> Implement and enforce a no-smoking policy in all common and individual living areas, and within a 25-foot perimeter around the exterior of all residential projects.</p>

**28** SUBTOTAL OPTIONAL POINTS



M = MANDATORY  
# = OPTIONAL POINTS

8. OPERATIONS, MAINTENANCE + RESIDENT ENGAGEMENT	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<p><b>M</b></p> <p><b>8.1 Building Operations &amp; Maintenance (O&amp;M) Manual and Plan (For all multifamily projects)</b> Develop a manual with thorough building operations and maintenance guidance and a complementary plan. The manual and plan should be developed over the course of the project design, development and construction stages, and should include sections/chapters addressing the list of topics.</p>
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<p><b>M</b></p> <p><b>8.2 Emergency Management Manual (For all multifamily projects)</b> Provide a manual on emergency operations targeted toward operations and maintenance staff and other building-level personnel. The manual should address responses to various types of emergencies, leading with those that have the greatest probability of negatively affecting the project. The manual should provide guidance as to how to sustain the delivery of adequate housing throughout an emergency and cover a range of topics, including but not limited to:  <ul style="list-style-type: none"> <li>• communication plans for staff and residents</li> <li>• useful contact information for public utility and other service providers</li> <li>• infrastructure and building “shutdown” procedures</li> </ul> </p>
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<p><b>M</b></p> <p><b>8.3 Resident Manual</b> Provide a guide for homeowners and renters that explains the intent, benefits, use and maintenance of their home's green features and practices. The Resident Manual should encourage green and healthy activities per the list of topics.</p>
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<p><b>M</b></p> <p><b>8.4 Resident and Property Staff Orientation</b> Provide a comprehensive walk-through and orientation for all residents, property manager(s) and buildings operations staff. Use the appropriate manuals (see Criteria 8.1, 8.2, 8.3) as the base of the curriculum, and review the project's green features, operations and maintenance procedures, and emergency protocols.</p>
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<p><b>M</b></p> <p><b>8.5 Project Data Collection and Monitoring System: 100% Owner-Paid Utility Accounts; 15% Tenant-Paid Utility Accounts</b> <i>For rental properties:</i> Collect and monitor project energy and water performance data for 100% of owner-paid utilities and 15% of tenant-paid utilities for at least 5 years. This data must be maintained in a manner that allows staff to easily access and monitor it, enabling them to make informed operations and capital planning decisions. Also allow Enterprise access to this data. <i>For owner-occupied units:</i> Collect and monitor energy and water performance data in a manner that allows for easy access and review and provides the ability to influence home operations. Also allow Enterprise access to this data.</p>
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> MAYBE	<p><b>7 or 11</b></p> <p><b>8.6 Project Data Collection and Monitoring System: Greater than 15% Tenant-Paid Utility Accounts</b> Collect and monitor project energy and water performance data for at least 5 years. This data must be maintained in a manner that allows staff to easily access and monitor it, enabling them to make informed operations and capital planning decisions. Also allow Enterprise access to this data. 16–60% of units [7 points]; 60–100% of units [11 points].</p>

**7** SUBTOTAL OPTIONAL POINTS

**7** SUBTOTAL OPTIONAL POINTS

TOTAL OPTIONAL POINTS